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**Cc:** richard.m.leuser@lmco.com[richard.m.leuser@lmco.com]; Taylor, Kevin C[kevin.c.taylor@lmco.com]; Burchette, Sella[Burchette.Sella@epa.gov]; Greenberg, Marc[Greenberg.Marc@epa.gov]  
**From:** Kady, Thomas  
**Sent:** Thur 8/13/2015 5:03:07 PM  
**Subject:** FW: Water Treatment at Gold King  
cement creek CC48 N Silverton .xlsx

Jon –

R8 called for help with the Gold King incident. We need to look for small footprint treatment units that can be mounted on semis. Flow is 200 – 800 gpm. Average ~500 gpm. pH is running at 2-4 from the adit, but 6-7 in the creek. They have room for settling basins, equilibration/holding ponds, and whatnot. Need to raise pH to knockout the metals. Maybe aeration as well. What we're really looking for is a company that has the equipment, capability and experience to get up there and do their thing. We need to ID prospective vendors and vet their approach/processes. (Charge the 001 Emergency Response Work Assignment)

Attached is analytical results **taken in the creek** (not the adit discharge) just downstream of the adit shortly after the release ... so it should be a worst case. Need to knock out the Zinc and Copper from a toxicity point of view, but iron loading will make that more difficult.

**MARK SPRENGER, DAVE CHARTERS, CHRIS GUSSMAN, RICH HENRY, MARC GREENBERG** – am I right about zinc and copper being the bad actors for aquatic life? Are there other metals in the spreadsheet we need to focus on?

Tom

**From:** Brobst, Bob  
**Sent:** Thursday, August 13, 2015 12:31 PM  
**To:** Kady, Thomas  
**Subject:** FW: Water Treatment at Gold King

Robert B. Brobst, P.E.

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**“It is a capital mistake to theorize before one has data. Insensible one begins to twist facts to suit theories, instead of theories to suit facts.” Arthur Conan Doyle’s A Scandal in Bohemia (1891)**

**“ The Good thing about science is that it’s true whether or not you believe in it.” Neil deGrasse Tyson**

**From:** Brobst, Bob

**Sent:** Tuesday, August 11, 2015 11:46 AM

**To:** 'Matt Francis'; Way, Steven; Griswold, Hays

**Subject:** RE: Water Treatment at Gold King

Matt wanted to get some prelim data on WQ at the audit – but it is taking a while to get to that data base. Marty is on it though so I hope to have it soon.

In the meantime here is some chemical data downstream in cement ck. Just upstream from Silverton at station CC48.

I will send the Adit data along as soon as I get it.

Bob

Robert B. Brobst, P.E.

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**From:** Matt Francis [<mailto:m.francis@erllc.com>]  
**Sent:** Tuesday, August 11, 2015 10:10 AM  
**To:** Brobst, Bob; Way, Steven; Griswold, Hays  
**Subject:** Water Treatment at Gold King

These are the guys talking to us so far

<http://www.omniwatersolutions.com/>

<http://www.evoqua.com>

Matt Francis

Environmental Restoration, LLC

303.994.6611

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